

3.11 Remediation Activities

3.11.1 General Description of Source Category

In an effort to remedy contamination from historic operations and subsurface media, the Laboratory routinely engages in site remediation activities. The Environmental Restoration Project was formed in 1989 to investigate whether hazardous chemical and/or radioactive wastes are present as a result of past Laboratory operations and to clean up sites where such materials are still found above acceptable levels. Over 2,100 potential release sites were originally identified at and around the Laboratory. Contamination originated from septic tanks and lines, chemical storage areas, wastewater outfalls, landfills, incinerators, firing ranges and their impact areas, surface spills, and electric transformers. Potential release sites are found on mesa tops, in canyons, and in the Los Alamos townsite. As a result of the investigations and previous remediation activities, the Laboratory has reduced the number of potential release sites requiring further action by over 60%. A small percentage of sites, currently estimated at less than 10 percent, will need to go through the entire corrective action process, a task that is expected to take until 2013 to complete.

The Environmental Restoration Project organizes its site investigation and remediation efforts according to the watersheds in which the sites are found. A watershed is composed of one or more mesas, all of the drainages from those mesas, and the major canyon into which the drainages converge.

The Environmental Restoration Project evaluates an entire watershed from a mesa top, through a canyon, to the Rio Grande in order to evaluate how contamination moves in sediments, surface water, soils, and groundwater throughout the watershed. Remediation decisions are made by taking the entire watershed system into consideration. The project evaluates the amount of contaminants, the type of contamination, and public accessibility to the watershed and analyzes human health and ecological risks within the watershed. The project uses the evaluation results to prioritize its remediation efforts so the most contaminated and most publicly accessible sites are addressed first. Each

watershed presents unique challenges because of its location and topography and because of the cleanup solutions required by the types of hazardous chemical and/or radioactive wastes found in the watershed.

3.11.2 Operating Schedule

Operating hours will vary with each project. Many full-scale remediation activities operate on a 24-hour a day schedule. The length of the projects will vary due to the type and amount of contamination.

3.11.3 Process Flow Diagram

Because this section of the application assesses possible future remediation activities that could employ different methods of contamination removal based on current technology, providing a process flow diagram is not practical.

3.11.4 Emissions

Emissions from remediation activities are generally fugitive, or area source emissions, and not vented through a definite stack. As discussed in Section 2.2, fugitive emissions are not included in PSD major source determinations. Therefore, emissions of criteria pollutants from remediation activities are not included in the facility-wide totals. However, with respect to minor source status for Title III applicability, fugitive emissions must be included. Therefore, HAP emissions from remediation activities must be included in facility-wide totals. HAP emissions will vary with each project depending on the type of technology used. An analysis of emissions from recent projects indicates that individual remediation activities will generally result in less than 0.5 tons per year of HAP emissions. Each upcoming project will be evaluated to ensure that the projected emissions will not affect the Laboratory's standing as an area, or minor, source of HAP emissions.

3.11.5 Emissions Control Equipment

As is practical, the Laboratory will ensure that emissions control equipment is applied in a manner to minimize the emission of pollutants to the atmosphere.

3.11.6 Applicable Requirements

Because projects will vary depending on the site and the technology employed, which will in turn affect emissions estimates and regulatory applicability, applicable requirements will be evaluated on a case-by-case basis and submitted to NMED in conjunction with any additional permitting requirements.

3.11.7 Proposed Monitoring, Recordkeeping, and Reporting

Recordkeeping and reporting requirements are presented in the following table. Required recordkeeping and reporting are followed with a citation for the basis of the requirement. The Laboratory will submit to NMED any additional Monitoring, Recordkeeping, and Reporting requirements identified during the planning stages of any new remediation activity.

Table 3.11-1. Proposed Monitoring, Recordkeeping, and Reporting for Remediation Activities

Source Category	Monitoring, Recordkeeping, and Reporting
Remediation Activities	<p><i>Monitoring/Recordkeeping:</i></p> <ul style="list-style-type: none">• Monitoring and Recordkeeping will be performed in accordance with applicable requirements identified on a case-by-case basis. (LANL proposed condition) <p><i>Reporting:</i></p> <ul style="list-style-type: none">• Report criteria pollutant and HAP emissions on a semiannual basis for those sources that do not qualify as an insignificant emission unit. (20.2.73.300 NMAC for criteria pollutants and LANL proposed condition for HAPs and semiannual basis)• Submit semiannual report of any required monitoring within 45 days from the end of each reporting period. The reporting periods are January to June and July to December. (20.2.70.302(E)(1) NMAC)